

WHAT IS CLAIMED IS:

1. A method for providing an internal topology of a node within a network, comprising:

determining asymmetric connections between traffic  
5 bearing components in a network node;

determining an intranode connectivity between the traffic bearing components based on the connections;

distributing a model of the node indicative of the intranode connectivity to a disparate node in a network  
10 with the node; and

using the model at the disparate node in determining a routing path through the network.

2. The method of Claim 1, wherein the traffic  
15 bearing components comprise receiver transmitter pairs (RTPs).

3. The method of Claim 1, wherein the traffic bearing components comprise receiver transmitter pairs  
20 (RTPs) and lower speed interfaces to external nodes coupled to the network.

4. The method of Claim 1, further comprising determining all possible internode connectivity between  
25 the traffic bearing components based on the asymmetric connections.

5. The method of Claim 1, further comprising distributing the model using opaque link state  
30 advertisements (LSAs).

6. The method of Claim 1, wherein the network comprises a private network.

7. The method of Claim 1, further comprising  
5 determining internode connectivity between the traffic bearing components by assigning weights to the asymmetric connections based on their speed.

8. The method of Claim 1, further comprising:  
10 assigning a first weight for higher speed connections and a second higher weight for lower speed connections to generate weighted connections; and  
utilizing open shortest path first on the weighted connections at the disparate node to determine the  
15 routing path through the network.

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9. A system for providing an internal topology of a node within a network, comprising:

means for determining asymmetric connections between  
5 traffic bearing components in a network node;

means for determining an intranode connectivity between the traffic bearing components based on the connections;

means for distributing a model of the node  
10 indicative of the intranode connectivity to a disparate node in a network with the node; and

means for using the model at the disparate node in determining a routing path through the network.

10. The system of Claim 9, wherein the traffic bearing components comprise receiver transmitter pairs (RTPs).

11. The system of Claim 9, wherein the traffic bearing components comprise receiver transmitter pairs (RTPs) and lower speed interfaces to external nodes coupled to the network.

12. The system of Claim 9, further comprising means  
25 for determining all possible internode connectivity between the traffic bearing components based on the asymmetric connections.

13. The system of Claim 9, further comprising means  
30 for distributing the model using opaque link state advertisements (LSAs).

14. The system of Claim 9, wherein the network comprises a private network.

15. The system of Claim 9, further comprising means  
5 for determining internode connectivity between the traffic bearing components by assigning weights to the asymmetric connections based on their speed.

16. The system of Claim 9, further comprising:  
10 means for assigning a first weight for higher speed connections and a second higher weight for lower speed connections to generate weighted connections; and

means for utilizing open shortest path first on the weighted connections at the disparate node to determine  
15 the routing path through the network.

17. A system for providing an internal topology of a node within a network, comprising:

logic encoded in media; and

5 the logic operable to determine asymmetric connections between traffic bearing components in a network node, to determine an intranode connectivity between the traffic bearing components based on the connections, to distribute a model of the node indicative  
10 of the intranode connectivity to a disparate node in a network with the node and to use the model at the disparate node in determining a routing path through the network.

15 18. The system of Claim 17, wherein the traffic bearing components comprise receiver transmitter pairs (RTPs).

19. The system of Claim 17, wherein the traffic  
20 bearing components comprise receiver transmitter pairs (RTPs) and lower speed interfaces to external nodes coupled to the network.

20. The system of Claim 17, the logic further  
25 operable to determine all possible internode connectivity between the traffic bearing components based on the asymmetric connections.

21. The system of Claim 17, the logic further  
30 operable to distribute the model using opaque link state advertisements (LSAs).

22. The system of Claim 17, wherein the network comprises a private network.

23. The system of Claim 17, the logic further  
5 operable to determine internode connectivity between the traffic bearing components by assigning weights to the asymmetric connections based on their speed.

24. The system of Claim 17, the logic further  
10 operable to assign a first weight for higher speed connections and a second higher weight for lower speed connections to generate weighted connections and to utilize open shortest path first on the weighted connections at the disparate node to determine the  
15 routing path through the network.

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